

## CHAPTER 1

### INTRODUCTION

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**1-1. Purpose.** This manual prescribes criteria and furnishes guidance for the structural design of reinforced masonry in buildings.

**1-2. Scope.** The requirements for reinforced masonry in this manual will be used for the design of masonry elements of buildings to be constructed in all seismic zones. In addition to the requirements in this manual, masonry buildings constructed in seismic zones 1 through 4, will be designed in accordance with TM 5-809-10/NAVFAC P-355/AFM 88-3, Chapter 13. In areas of conflict, the reinforcing and detailing requirements of TM 5-809-10/NAVFAC P-355/AFM 88-3, Chapter 13 supersedes the requirements in this manual. The requirements contained herein are limited to buildings not more than nine stories of 120 feet in height. For masonry design requirements for taller buildings, CEMP-ET will be consulted. In overseas construction, where local materials of grades other than those specified herein are used, the design methods, details and other requirements of this

manual will be modified as applicable. Unreinforced masonry construction is permitted only for nonstructural partitions in seismic zone 0. For these partitions, the unreinforced masonry design criteria given in ACI 530 will be used, however, the minimum reinforcement around openings given herein must be satisfied. When evaluating existing reinforced masonry in buildings in seismic zone 0, this manual will be used. When evaluating existing unreinforced masonry in buildings in seismic zone 0, ACI 530 will be used. All new masonry buildings will be designed as reinforced masonry in accordance with the requirements of this manual. Applicable building codes, and exceptions thereto, are noted herein. The structural design is based on the working stress method. Tables, figures and design examples are presented as design aids for convenience in the design of brick and concrete masonry buildings.

**1-3. References.** Appendix A contains a list of references used in this manual.